CONSERVATION COMPLIANCE AND OHIO FARM OPERATORS

Sharon Thayer, Carl Zulauf, and Allan Lines

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The use of farm programs to encourage more environmentally friendly farm practices is a recent farm policy trend. A bellwether in this trend was the adoption of conservation compliance in the *Food Security Act of 1985*. Conservation compliance requires farm operators to implement by January 1, 1995 a program which reduces soil erosion on highly erodible land in order to be eligible for farm program payments. As this implementation date approaches, 1005 Ohio farm operators were randomly selected for a survey about compliance and other farm policy issues. Useable responses numbered 566 on the compliance questions, yielding a 56% useable response rate. Except for a disproportionately high number of larger farms, respondents were representative of the Ohio farm operator population.

SCOPE AND IMPACT OF THE CONSERVATION COMPLIANCE PROGRAM

Thirty-five percent of the Ohio farm operator respondents replied that some or all of the land which they own is subject to conservation compliance (CC), while 16% responded that some or all of the land which they rent is subject to CC (appendix). In contrast, 29% of the operators replied that none of the land they own is subject to CC and 16% replied that none of the land they rent is subject to CC. No response was obtained from approximately 10% of the respondents.

Approximately one-fifth of the respondents do not know their CC status on some or all of the land they operate (appendix). On most farm and operator characteristics, these operators were similar to the other farm operator respondents. However, the farmers who do not know their CC status operated fewer acres (163 vs. 313 acres) and were much less likely to participate in the corn and/or wheat program (18% vs. 54%). The latter suggests a reason why an operator may not know his/her CC status. Farm operators not in farm programs are unaffected by the CC penalty of being ineligible for farm program payments. Hence, they have little financial incentive to know their CC status.

Of the respondents who had some or all of their owned land subject to CC, 81% indicated that they would be in compliance by January 1, 1995 (appendix). Only 3% indicated they would not be in compliance. The percentages were similar for rented land.

Of the 177 operators who replied that they will be in compliance by January 1, 1995 on their owned and rented land, 38% said no changes were needed in their farming operation in order to meet compliance requirements (appendix). On the other hand, 45% changed tillage practices, 22% changed crop rotations, and 10% took land out of annual crop production.

Of the 104 operators who indicated that CC required changes in their farming operation, 14% responded that CC resulted in increased production (appendix). A decline in production was reported by 21%, while 41% reported no change in production. Thus, CC's impact on production statewide probably is a net small decline.

A plurality of the 104 operators (30%) reported that crop expenses increased, while 28% and 19% reported no change and lower expenses, respectively (appendix). In terms of net profit, 13%, 34%, and 29% of the respondents felt that meeting CC increased, had no effect, and decreased their profits, respectively. Thus, only about one-third of farm operators who complied reported that CC decreased their profits.

(over)

In summary, 47% of the Ohio farm operator respondents were not negatively affected by CC. Either no land is subject to compliance, or no changes were necessary in order to comply, or profits were unaffected, or profits increased. If it is assumed that the non-respondents and the operators who did not know their compliance status are distributed the same as those operators for whom information is available, this percentage increases to 66%.

TILLAGE PRACTICES

Of the 566 survey respondents, 47% reported that their use of conservation tillage had increased since 1985, but only 14% reported that CC caused them to change tillage practices (appendix). This difference is a crude indicator of the social pressure on farmers to reduce soil erosion and on equipment dealers to develop economically-viable, yet environmentally-responsive equipment. The pressure also is reflected in the fact that 43% of the 566 respondents expected their use of conservation tillage to increase by the year 2000. Only 5% expected their use to decrease.

As of early 1994, 45% of the operators no-till, 44% moldboard plow in the spring, 32% moldboard plow in the fall, 32% use a disk as primary tillage, 30% chisel plow in the fall, 20% chisel plow in the spring, and 1% ridge-till (appendix). The sum of these percentages (204%) indicates that many producers use multiple tillage systems. In fact, 65% use multiple tillage systems.

A greater percentage of younger farm operators no-till and chisel plow than do older farm operators (Table 1). In addition, the larger the number of crop acres farmed (sum of corn, soybean, wheat, oats, and hay acres), the more likely the operator no-tills and/or chisel plows (Table 2). These two tabulations suggest that soil conserving techniques will continue to grow as farms get larger and young farm operators replace old farm operators. {Note, moldboard plowing does not vary with age. Thus, younger operators still use traditional moldboard plowing, along with no-till and chisel plowing.}

CONCLUSIONS

Conservation compliance emerges as a public policy which has negatively affected only a small minority of Ohio farm operators. This conclusion partially explains the finding that a clear majority of survey respondents (57%) agreed that compliance should be continued (appendix). This finding was surprising given the intense debate over the last 10 years.

In the end, conservation compliance acted more like a signalling policy than a punitive policy. A signalling policy codifies societal desires regarding the desired behavior of a part of society. Clearly, this survey suggests that government policy which signals private behavior, provides financial incentives to achieve it, but falls short of a universal mandate can significantly alter behavior toward broader societal goals while achieving significant support in the regulated sector.

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TABLE 1. TILLAGE PRACTICE BY AGE OF FARM OPERATOR, OHIO, MARCH 1994

Age	Moldboard Plow in Fall	Chisel Plow in Fall	Moldboard Plow in Spring	Chisel Plow in Spring	Disk as Primary Tillage	Ridge-Till	No-Till	No Response
	---------- Percent of Farm Operators^ ----------							
Under 35	37	48	48	41	26	4	59	0
35 - 49	33	39	50	25	32	3	55	5
50 - 64	30	29	42	19	31	1	45	8
65 & over	32	18	40	13	33	1	28	11
All Farmers	31	30	44	20	31	1	44	7

^Based on following number of respondents by categories: Under 35, 26; 35 - 49, 152; 50 - 64, 240; over 65, 140; and all farmers, 558.
SOURCE: Original Survey Data

TABLE 2. TILLAGE PRACTICE BY NUMBER OF CROP ACRES, OHIO, MARCH 1994

Crop Acres	Moldboard Plow in Fall	Chisel Plow in Fall	Moldboard Plow In Spring	Chisel Plow in Spring	Disk as Primary Tillage	Ridge-Till	No-Till	No Response
	---------- Percent of Farm Operators^ ----------							
0 - 99	26	13	49	14	28	1	27	14
100 - 249	47	37	43	23	39	1	53	2
250 - 499	37	61	37	33	27	2	61	2
over 500	37	54	27	25	25	5	85	3
All Farmers	34	31	43	20	31	2	45	8

^Based on following number of respondents by categories: 0 - 99, 215; 100 - 249, 120; 250 - 499, 51; over 500, 59; and all farmers, 445.
SOURCE: Original Survey Data

APPENDIX: OHIO FARM OPERATOR RESPONSES REGARDING CONSERVATION COMPLIANCE

On Owned (Rented) Land (n = 566 farmers)	Owned Land	Rented Land
	----- percent of farm operators -----	
No land is subject to conservation compliance	29%	16%
Some land is subject to conservation compliance	19%	9%
All land is subject to conservation compliance	16%	7%
Do not know if land is subject to compliance	19%	8%
Do not own (rent)	6%	48%
No response	10%	11%
Total	100%	100%

Will conservation compliance be met by 1/95 on:	Owned Land (n = 208)	Rented Land (n = 108)
	----- percent of farm operators -----	
Yes	81%	79%
No	3%	2%
No response	16%	19%
Total	100%	100%

If answer is yes, how requirement has been or will be met: (n = 177 farm operators)

Changed tillage practices	45%
No changes needed to comply	38%
Changed crop rotation	21%
Took land out of annual crop production	10%
Land/field formation (terraces, strip cropping, etc.)	3%
No response	3%

If you have complied, impact of conservation compliance requirements on: (n = 104 farm operators)

	Production	Crop Expenses	Profit
Increased	14%	30%	13%
Remained the same	41%	28%	34%
Decreased	21%	19%	29%
Do not know	14%	12%	15%
No response	9%	12%	9%
Total	100%	100%	100%

Percent of Farm Operators Currently Using: (may use more than one tillage practice; n = 566)

Moldboard plow in fall	32%	Disk as primary tillage	32%
Chisel plow in fall	30%	Ridge-till	1%
Moldboard plow in spring	44%	No-till	45%
Chisel plow in spring	20%	No response	7%

Compared to 1985, Use of Conservation Tillage has: (n = 566 farm operators)

48% Increased 38% Remained the Same 7% Decreased 7% No Response

By 2000, Use of Conservation Tillage is Expected to: (n = 566 farm operators)

43% Increase 45% Remain the Same 5% Decrease 7% No Response

The conservation compliance program should be continued. (n = 566 farm operators)

10% Strg. Agree 47% Agree 20% Not Sure 14% Disagree 6% Strg. Disagree 4% No Response